WESTERN CATS

Computer Science
2021—2022

Year One

Summer Session

Course	Title	Units	Complete
MAT 220	Calculus I	5	AWC
ENG 101	Freshman Composition I	3	AWC
	Total	8	

Semester One (Fall)

Course	Title	Units	Complete
ENG 102	Freshman Composition II	3	AWC
CHM 151	General Chemistry I	4	AWC
CSC 261	Linux/UNIX Operating Systems	3	AWC
PHI 103	Intro to Logic	3	AWC
	Total	13	

Semester Two (Spring)

Course	Title	Units	Complete
ECN 250	Microeconomics	3	AWC
MAT 230	Calculus II w/ Geometry	5	AWC
EGR 123	Intro to Structured Programming[1]	3	AWC
PHY 121	Mechanics	4	AWC
	Total	15	

Summer Session

Course	Title	Units	Complete
AGEC-S	Social Science	3	AWC
AGEC-S	Art	3	AWC
	Total	6	

	Units	Complete
Total Year 1 Credits	**42**	**AWC**

Year Two

Semester Three (Fall)

Course	Title	Units	Complete
MAT 241	Calculus III	4	AWC
CSC 127a	Intro to Comp. Science I	4	AWC
MAT 262	Intro to Ordinary Differential Equations	3	AWC
CSC 210	Human Computer Interaction	3	AWC
	Total	14	

Semester Four (Spring)

Course	Title	Units	Complete
CSC 127b	Intro to Comp. Science II	4	AWC
MAT 227	Discrete Mathematics	3	AWC
CSC 252	Computer Organization	3	AWC
PHY 131	Electricity & Mag	4	AWC
	Total	14	

	Units	Complete
Total Year 2 Credits	**28**	**AWC**

[1]**Prerequisites include MAT 187 or MAT 151 & 183 or placement testing**

*Courses serve as pre-requisite, completion not required for degree

Computer Science

Start UA Fall OR Start UA Spring

Fall - Semester Five

Course	Title	Units
CSCV 352	Systems Programming & UNIX	3
CSCV 372	Comparative Programming Languages	3
	Focus Area	3
	Total	9

Spring- Semester Six

Course	Title	Units
CSCV 335	Object Oriented Programming and Design	3
CSCV 345	Analysis of Discrete Structures	3
CSCV 337	Web Programming	3
CSCV 402	Mathematical Logic	3
	Total	12

Fall - Semester Seven

Course	Title	Units
CSCV 453/ CSCV 471	Compilers & Systems Software/Artificial Intelligence	3
CSCV 381	Mobile Device Programming	3
	Focus Area	3
	Total	9

Spring - Semester Eight

Course	Title	Units
CSCV 460	Database Design	3
CSCV 452	Principles of Operating Systems	3
CSCV 473/ CSCV 445	Automata, Grammars & Languages/ Algorithms	3
	Focus Area	3
	Total	12

NOTE: This is the advised sequence course for the B.S. in Computer Science. The official degree requirements can be found in The University of Arizona catalog.

IMPORTANT: SIE 295. Introduction to UA, APCV 391. Preceptorship, APCV 393. Internship and APCV 499. Independent Study are highly recommended.

Spring- Semester Five

Course	Title	Units
CSCV 335	Object Oriented Programming and Design	3
CSCV 345	Analysis of Discrete Structures	3
CSCV 337	Web Programming	3
CSCV 402	Mathematical Logic	3
	Total	12

Fall - Semester Six

Course	Title	Units
CSCV 352	Systems Programming & UNIX	3
CSCV 372	Comparative Programming Languages	3
CSCV 381	Mobile Device Programming	3
	Focus Area	3
	Total	12

Spring - Semester Seven

Course	Title	Units
CSCV 452	Principles of Operating Systems	3
CSCV 460	Database Design	3
CSCV 473/ CSCV 445	Automata, Grammars, & Languages/ Algorithms	3
	Total	9

Fall - Semester Eight

Course	Title	Units
CSCV 453/ CSCV 471	Compilers & Systems Software/ Artificial Intelligence	3
	Focus Area	3
	Focus Area	3
	Total	9

AWC credits	**78+**	
BS Degree	**45+**	

Second semester proficiency required in a second language for BAS degree. Can be fulfilled with 101 and 102 courses at AWC or CLEP exam.

Focus Area

Math

Course	Title	Units	Complete
MAT 262	Intro to Ordinary Differential Equations	3	AWC
MATV 402/ CSCV 402	Mathematical Logic	3	UA
MATV 313	Introduction to Linear Algebra	3	UA
MATV 443	Theory of Graph and Networks	3	UA
MATV 445/ 475A&B	Introduction to Cryptography/ Mathematical Principles of Numerical Analysis	3	UA
	Elective Units	6	UA
	Total	20/22	

Cyber Operations Certificate

Course	Title	Units	Complete
CYBV 301	Fundamentals of Cybersecurity	3	UA
	Elective Units	9	UA
CYBV 435/ CYBV 388	Cyber Threat Intelligence/Cyber Investigations and Forensics	3	UA
CYBV 400	Active Cyber Defense	3	UA
CYBV 385	Introduction to Cyber Operations	3	UA
	Total	18/20	

Focus Area

Spanish

Course	Title	Units	Complete
SPNV 325	Intermediate Grammar and Writing	3	UA
SPNV 333	Advanced Spanish for Heritage Learners	3	UA
SPNV 350	Readings in the Literary Genres	3	UA
SPNV 441/448/399 (choose 1)	Children's Literature in Spanish/Mexican and Mexican-American Films/Independent Study	3	UA
	*SPAN 250 (required for non heritage speakers)	3	UA
	CLEP Test	8	
	Total	20/23	

Intelligence Studies

Course	Title	Units	Complete
	Upper Division Core Electives GPSV/INTV/LASV	3	UA
GPSV 365	The Individual, Society, and the Law	3	UA
GPSV 313	The American Judicial System	3	UA
GPSV 314	National Security Policy	3	UA
GPSV 471/ 472/473 (choose 1)	National Security and Intelligence/History of American Intelligence Policy/National Security Operations and Issues/	3	UA
GPSV 474/ PSYV 368	Politics of Terrorism/ Psychology of Terrorism	3	UA
	Total	18	